New Product

# MachineLibrary™ – a multimedia CD-ROM for complete machinery analysis

*by Bob Hayashida*
*Machinery Diagnostics*
*Training Manager*
*Bently Nevada Corporation*

Incorporating true user interaction, MachineLibrary includes a broad range of powerful and practical tools, reference materials, and multimedia tutorials. Extensive use of computer animations, graphics, and interactive simulators allow the user to interact with the learning environment.

### Multimedia Tutorials –

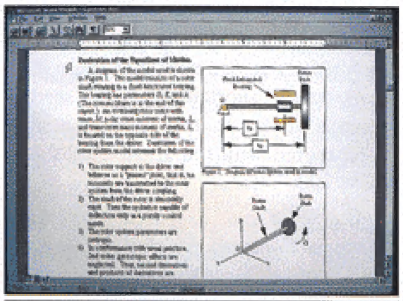
Guided multimedia tutorials provide a detailed description of all the plot formats used to diagnose machinery malfunctions. Topics include steady state and transient plot formats, such as: orbits, polar, Bode, shaft position, full spectrum, and spectrum cascade. Major topics are segregated into subtopics for ease of navigation. "Bubba," the animated assistant, has a notebook filled with information on various related issues.

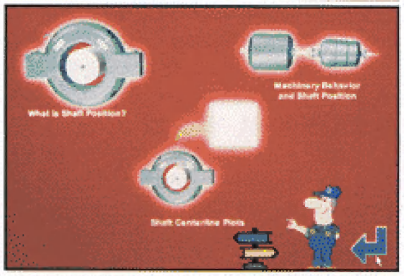
### Bubba –

Bubba is the animated assistant who provides help on various topics, and tips on machinery monitoring, instrumentation, and applications. Bubba has a lot to offer if you ask for his help.

### Machinery Malfunction Case Histories –

An extensive selection of actual machinery malfunction case histories as they occurred in the field. A complete description of the machine, history, and symptoms is provided, along with the diagnostic engineer's conclusions, and the methodology and data used to support the conclusions. The user can retrieve this data automatically, using ADRE®DMi, a special version of ADRE for Windows.






### ADRE DMi –

A special "display only" version of ADRE for Windows Software, which includes all the data handling and manipulation capabilities and adds a powerful "Rotor System Dynamic Response Simulator." ADRE DMi can also be used to review any archived ADRE for Windows or ADRE 3 database.

### Rotor System Dynamic Response Simulator –

This tool allows a user to study the effects of system parameters, including bearing stiffnesses, damping, fluid circumferential average velocity ratio, rotor speed, unbalance, and perturbation frequency, on the rotor system model. By entering values for various parameters, the calculated response of the rotor is presented in polar and Bode plot formats.

### Orbit/Timebase Simulator –

This tool allows the user to learn how orbit shapes are generated. The amplitude, frequency, and phase of up to 5 different vibration vectors can be defined. There is also a library of orbit shapes associated with machinery malfunctions, including rubs, loads, misalignment, and cracked shafts.

### Full Spectrum Simulator –

A full spectrum plot includes critical information on forward and reverse vibration components, essential elements of malfunction analysis and root cause determination. This simulator allows the user to interactively change the relative amplitude of forward and reverse, 1X and 2X vibration components to evaluate the effect on orbit shape.

### Bently Rotor Dynamics Research Corporation Technical Papers –

The library includes a valuable set of technical papers from Bently Rotor Dynamics Research Corporation. Here you can find many of the latest articles on rotor dynamics, analysis of field data, and theoretical models of rotating machinery.

### Machinery Reference Information–

The machinery reference information covers a wide variety of topics, including design and process considerations for major machine types, such as steam turbines, generators, gas turbines, and gearboxes. Photographs and graphics help illustrate details.

MachineLibrary runs on Windows 95/NT 4.0, includes a site license and will be available only on CD-ROM. The site license will allow installation on up to 10 different computers at a single geographical location and an unlimited number of users. The recommended platform is a Pentium-class computer with 24 MB of RAM, a display with more than 256 colors, audio support, and a 6X CD-ROM drive. Demos are available on our web site: http://www.bently.com. ■